

TABLE 1. Beetle contents of 73 scats of the Channel Islands fox. The left column of figures lists the numbers of scats containing each species. The right column lists total numbers found in all scats combined. Numbers of tenebrionids and of *Trigonoscuta* were estimated by counting prothoraces, which usually remained intact. Numbers of Scarabaeidae were estimated by counting elytra.

	# Scats	Total number of individuals
Tenebrionidae		
<i>Coelus remotus</i> Fall	23	196
<i>Coniontis latus</i> LeConte	1	1
<i>Eusattus robustus</i> LeConte	9	15
<i>Apsena grossa</i> LeConte	2	2
<i>Eleodes laticollis</i> LeConte	2	2
<i>Helops bachei</i> LeConte	3	3
Scarabaeidae ( <i>Phobetus</i> and <i>Serica</i> )	17	49
Curculionidae ( <i>Trigonoscuta</i> )	45	270

the exception of *Coniontis*, which was the least numerous of the beetles in the habitat, the tenebrionid species which were infrequently eaten possess quinonoid secretions which they release at the abdominal tip when disturbed. *Eleodes laticollis* is particularly well supplied with secretions, which are stored in large reservoirs in the abdomen and forcibly ejected as a fine spray which may travel over 30 cm. *Coelus*, *Coniontis*, and *Eusattus*, as well as the weevil and scarabs, lack secretions. Although quinonoid secretions of tenebrionids are popularly referred to as defensive secretions (Eisner and Blumberg, 1959, An. Rec., 134: 558-559), little evidence of differential predation is available. The data presented here suggest that species possessing secretions are ignored, at least when other food is present. Quantitative estimates of the population densities of the various species are unavailable, and nothing is known of the searching strategy of the fox. However, the differences in the numbers of individuals taken, especially between *Eleodes* and *Coelus*, are so marked that selective predation to avoid the beetles with defensive secretions seems likely.—JOHN T. DOYEN, *Division of Entomology and Parasitology, University of California, Berkeley 94720.*

**A note on the Nesting Biology of *Dianthidium pudicum pudicum* (Cresson) (Hymenoptera: Megachilidae).**—A nest of *Dianthidium pudicum pudicum* (Cresson) was discovered on 26 March, 1967, 9.3 miles south of Quartsite, Arizona. The nest contained 10 cells located about one meter off the ground in a forked branch of a creosote bush, *Larrea tridentata* Sesse & Mocino. The branch was in a horizontal position and about 6 mm in diameter at the nest location. The nest assumed the triangular shape of the branches (Fig. 1), with the sides 27-28 mm long. The dorsal surface extended 6 mm above the horizontal branches and the bottom extended 1-2 mm below the branches, averaging about 13 mm thick.

A dark brown resin, with a strong scent of *Larrea*, cemented numerous small pebbles together to form the outer surface of the nest. Internally, the resin became



FIG. 1. A nest of *Dianthidium pudicum pudicum*.

softer and yellowish-green in color. The small pebbles were tightly embedded throughout the interior of the nest, with occasional pieces of masticated leaf material.

In constructing the 10 vertically fused cells, the female bee appeared to have built the first cell in the base of the forked branches and then added rows of two, three, and four cells as she increased the triangular shape of the nest. The cells measured 5–5.5 mm in width and 9–10 mm in length. The cell walls averaged 0.5–0.75 mm in thickness. Cell surfaces adjacent to the branches had only a thin layer of resin, whereas the other surfaces contained numerous small pebbles which extended through the inner surface of resin into the cell cavity. Cell caps of the downward opening cells averaged 0.5–0.75 mm in thickness. The caps of 6 cells consisted of a circle of small pebbles with a resin filled center, while the other 4 cell caps did not show this construction pattern.

The dark brown cocoons were thin walled and transparent and the bees were visible through the cocoons. Anteriorly, the cocoons were thicker and heavily interwoven with white, silk threads (0.03–0.05 mm thick) which gave rise to the outer median mammillary projection. The white mammillary projections measured 0.75 mm in length and 0.75–1.0 mm wide at the base. Cocoons ranged from 8–8.5 mm in length from the tip of the projection to the base and they were about 4 mm wide. An air space approximately 1 mm in length separated the tip of the projection and the inner surface of each cell cap.

Individual orange fecal pellets were about 0.75 mm in length and 0.25 mm in width, without surface grooves or ridges. The cylindrical pellets were smeared against the inner surface of the cell walls, forming a continuous reddish-brown layer 0.25 mm thick around all but the anterior quarter of the cell. This fecal layer smooths the rough inner surface of the cell.

When the nest was opened in early April, the 3 basal cells and one of the third row cells contained post-defecating larvae and the remaining cells held 4